



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,692	12/20/2000	Kouji Nakahara	520.39419X00	3284

20457 7590 10/28/2002

ANTONELLI TERRY STOUT AND KRAUS
SUITE 1800
1300 NORTH SEVENTEENTH STREET
ARLINGTON, VA 22209

EXAMINER

NGUYEN, JOSEPH H

ART UNIT	PAPER NUMBER
----------	--------------

2815

DATE MAILED: 10/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,692

Applicant(s)

NAKAHARA ET AL.

Examiner

Joseph Nguyen

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 14, 15 and 25-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 1-13 and 16-24 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that claim 4 and some of the dependent claims are necessarily generic or sub-generic claims. This is not found persuasive because applicant has not clearly pointed out the reason why claim 4 and some of the dependent claims are necessarily generic or sub-generic. On the contrary, claims 14-15, 25-32 are directed to embodiments only illustrated in figures 5, 6, 7, 8 and 9. Therefore, claims 1-13, 16-24 are hereby prosecuted whereas claims 14-15, 25-32 are withdrawn from consideration.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 4, it is unclear the term "it" since whether this term "it" refers to the heating element or the semiconductor laser is not precisely defined.

Claims 5-7 are also rejected due to their dependency upon the rejected base claim 4.

Claim Rejections - 35 USC § 102

Art Unit: 2815

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-12, 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirose (JP57-54383).

Regarding claim 1, Hirose discloses on figure 3 a semiconductor laser module comprising a semiconductor laser 3; and control means 7 for controlling wavelength of the light wave radiated from the semiconductor laser wherein said wavelength is controlled by a heating element 7 involving no Peltier cooling.

Regarding claim 2, Hirose discloses on figure 3 said semiconductor laser module has no Peltier cooling means.

Regarding claim 3, Hirose discloses on figure 3 said heating element 2 generates heat depending upon size of a driving signal from a temperature control unit 8.

Regarding claim 4, Hirose discloses on figure 3 a semiconductor laser module comprising a semiconductor laser 3; a driving circuit 1 for driving said semiconductor laser; a heating element 7 for controlling temperature of said semiconductor laser; a temperature sensor 6 for sensing temperature near or around said semiconductor laser

Art Unit: 2815

and said heating element; and a temperature control unit 8 for controlling said heating element on the basis of temperature information from said temperature sensor, wherein said temperature control unit controls said heating element 7 without the use of Peltier cooling means so as to keep said semiconductor laser at the same temperature as ambient air temperature or higher than it.

Regarding claim 5, Hirose discloses on figure 3 said ambient air temperature is temperature outside a package of said semiconductor laser module.

Regarding claim 6, Hirose discloses on figure 3 said semiconductor laser module has no Peltier cooling means.

Regarding claim 7, Hirose discloses on figure 3 said heating element generates heat depending upon size of a driving signal from said temperature control unit 8.

Regarding claims 8-12, 16-24, Hirose discloses on figure 3 all the structures set forth in the claimed invention.

Claims 1-12, 16-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Palanisamy et al.

Regarding claims 1-12, 16-24, Palanisamy et al discloses on figure 2 all the structures set forth in the claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2815

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirose or Palanisamy as applied to claim 12 above, and further in view of Auracher et al.

Regarding claim 13, Hirose or Palanisamy discloses substantially all the structure set forth in the claimed invention except the semiconductor laser being a Fabry-Perot. However, Auracher discloses the semiconductor laser being a Fabry-Perot (col. 2, lines 15-20). In view of such teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hirose or Palanisamy by having the semiconductor laser being a Fabry-Perot for the purpose of optimizing the use of a semiconductor laser.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 5875204 to Sato discloses a temperature controlled semiconductor laser.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for

Art Unit: 2815

the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN

October 17, 2002

A handwritten signature in black ink, appearing to read 'Eddie Lee', with a large, sweeping initial 'E'.

EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800